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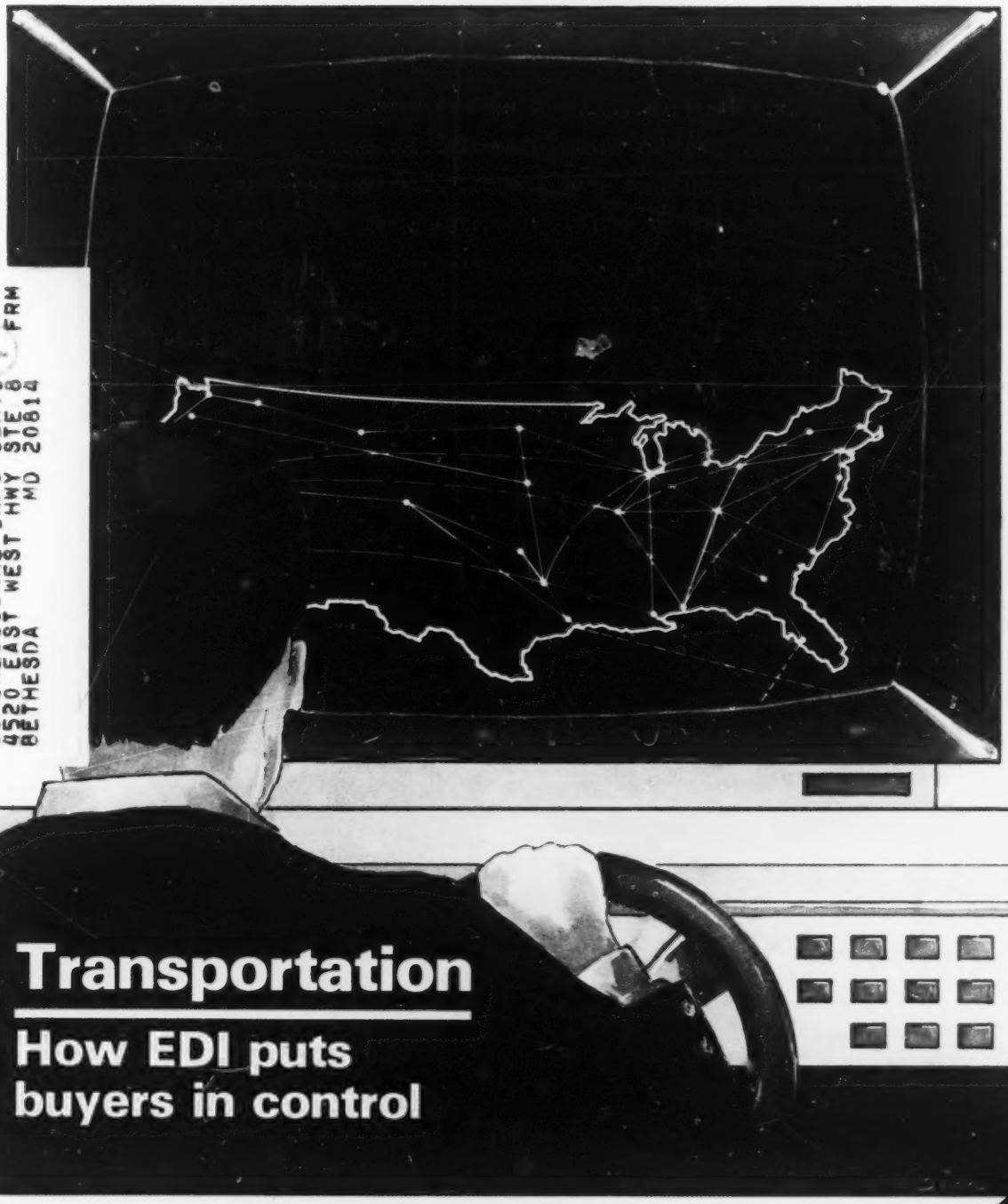

Transportation

How EDI puts buyers in control

How to buy right in oil markets

PM writes Rx for U.S. manufacturing woes

100 best Crystal Ball forecasters!

EXCLUSIVE: Wharton Report

PurchasingWorld®

Helping you manage the business of buying

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PW PREDICTS

Robert S. Reichard, executive editor

Prices follow energy tags—up

Industrial prices are beginning to accelerate a bit. The increases are quite modest in almost all cases, but it's still a lot different from last year when overall averages—sparked by sagging energy tags—actually fell a few points.

The changing climate is reflected in recent NAPM survey results. At latest report, nearly one in three respondents was reporting higher prices. The respondents characterize the boosts as "moderate or mild." But it still marks a shift from a few months back when only a handful of buyers said they were being socked with higher prices.

Some price realignment is also indicated by *PW*'s spot commodity index which shows raw material quotes moving up by more than 7% in the past three months.

Rising import prices, prodded by the soft dollar, are still another factor. The average incoming quote now runs 8.4% above last year.

And last but not least, energy tags will rise. The bellwether crude petroleum price is expected to average $18/bbl this year—several dollars above last year's level.

But industrial prices are far from taking off. There are still strong anti-inflationary forces—excess capacity, low average operating rates, and very little labor cost pressure.

How much acceleration then? Put all the factors into the computer and the speed-up in industrial producer prices should be quite modest—with increases by the third and fourth quarters coming to only 3% at annual rate.

The same kind of restrained advance is projected for the nation's other big price yardstick: the cost of living index. The higher crude oil prices will boost tags on gasoline and other consumer energy purchases. And this can't be underestimated—the energy sector accounts for a big 11% of total consumer outlays.

Dollar softness, also referred to earlier, will have its impact on the consumer level, too. Thus non-energy consumer goods have been advancing at about 2.5% over the past few quarters—sparked by price boosts in incoming shipments of autos, electronic goods, cameras, watches, and wines. That's considerably faster than the less than 0.5% annual rate of gain noted during the previous six months.

More important, there could be additional increases on the consumer import front. Overseas sources, despite the price hikes noted above, have been absorbing much of the exchange rate shifts. But they have gone as far as they can—any additional dollar weakness is likely to be passed through in the form of higher prices on an almost one to one basis.

Finally, don't forget services. While they have not been accelerating in recent months, they continue to rise at a rather strong 5% rate—again adding to overall cost-of-living upward pressure.

Most analysts are calling for the consumer price index to rise by about 3-4% annually by the second half of 1987—well above the 2% advance in 1986.

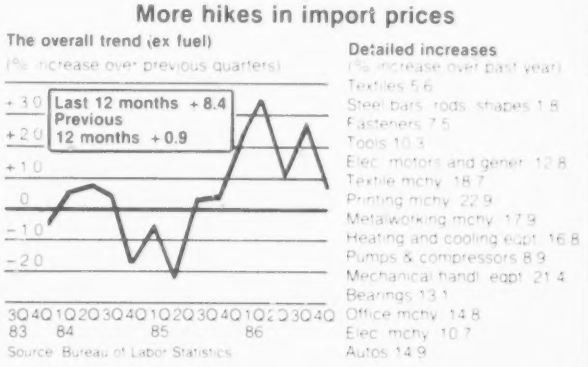
Import prices

Import bargains are becoming harder to find these days. As of the beginning of 1987, for example, the average import tag (excluding fuel) was running 8.4% above year-earlier levels, primarily because of the softening dollar. And with further dollar deterioration predicted, more boosts seem almost inevitable in the next few months.

The increases, however, will vary product-by-product. Individual sectors should shape up like this:

- **Fats and oils:** Average quotes rose 45.4% in the past quarter after two years of decreases, due in part to smaller oil crops in Malaysia and the Phillipines.
- **Intermediate manufactured goods:** The largest recent increases have been in paper and paperboard products—up 4.6% because of higher newsprint tags. Metals turned softer—iron and steel and nonferrous metals were off 0.4% and 2.3% respectively.
- **Machinery and transport equipment:** The latest 1.7% average quarterly advance follows several even higher boosts. Result: Totals are up 12% *vis a vis* a year earlier. Biggest increases in the past quarter were in road vehicles (2.6%), and specialized and general industry machinery (1%).
- **Miscellaneous manufactured goods:** Except for electronic components (up 7.5%), quarterly increases were modest—scientific and controlling apparatus (0.7%); photo, optical, and clock equipment (0.7%); electric motors (0.3%); and plastic materials (1.8%).
- **Fuel:** The new OPEC production pact pushed up averages 14.3% over the past quarter. But imported natural gas dropped 16.5% primarily because of continuing Canadian deregulation.

More hikes in import prices



Construction materials

CURRENT SITUATION: Buyers remain in control despite strong construction activity—price averages are up only about 1% over 1986. But that doesn't tell the whole story. Some oil-based products such as asphalt paving are down 30%. Cement is down, too—about 2.5% vs. last year's readings. Plastic construction products and structural steels are also weak. **The only strong item is softwood lumber**—7% above last winter's levels.

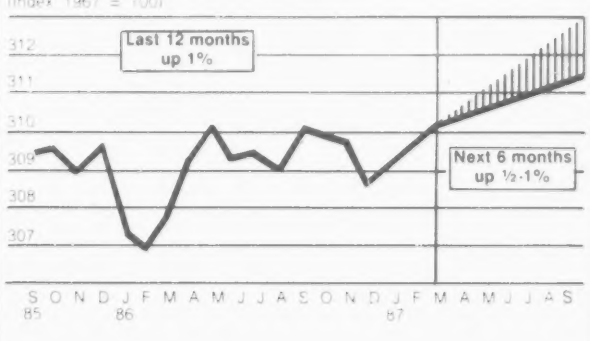
DEMAND: Demand is leveling off. Low mortgage rates for single-family housing should offset 4% and 2% gains for lumber and flat glass. **But contract awards for multi-unit residential housing, transportation, and commercial sectors of the market are declining.** Government forecasts project these drop-offs: hydraulic cement (-2.0%), brick and tile (-2.1%), concrete block and brick (-2.8%), ready mixed concrete (-1.1%), gypsum products (-2.8%), and structural metal (-8.0%).

SUPPLIES: There's ample supply—even for lumber. Demand is expected to increase at a time when Canadian imports should be tapering off. **No problems in cement, either.** Capacity utilization is under the 80% level and imports are 18% of the total market. Structural steel will be on the easy side and imports will play a significant role. There's plenty of coal ash.

PRICE OUTLOOK: 1987 looks good for buyers—average quotes will rise only 1%. But there are exceptions. Favorable demand and import restraints on lumber suggest a 4-6% increase. And structural steel shapes could be up. **But cement should remain weak.** Little price boost is seen as the U.S. declines to put duties on imports. Other changes for 1987: asphalt roofing (-2-3%), glass (+2-3%), insulation materials (+1-2%), copper wire and cable (little change), and gypsum board (-0-1%).

Construction material prices

(Index 1967 = 100)

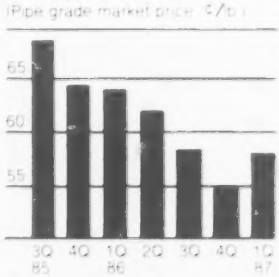


Steel

The end of the USX strike suggests some near-term easiness—with 3-5% being knocked off average tags over the next few months. The soft price pattern is verified by lower construction and auto demand for steel. Industry shipments are expected to drop to 65 million tons—off several million from last year. Excess capacity should also contribute to easiness—at the beginning of 1987 the industry was capable of turning out 119 million tons of raw steel—far more than suggested by this year's shipment estimate. Look for operating rates of under 70%.

ABS plastics

(Pipe grade market price, ¢/lb.)



ABS plastics

Last year's weakness is giving way to a firmer trend, as molding and extrusion grade resin prices move up 2-3¢/lb. Pipe grade resin is also edging up—the average price is estimated to be in the 55-61¢/lb range (up about 3¢/lb from late 1986 levels). Higher styrene monomer costs have been a key factor behind the new boosts. Other factors: 1) a drop in imports from Taiwan as that nation loses "favored nation" status, and 2) rising demand. The latter could be up as much as 5% this year—actually a bit more than last year's 4% increase.

Aluminum

Some modest firming is noted as transaction prices for many common alloy flat-rolled products sold to original equipment manufacturers are boosted up to 8¢/lb. Ingot remains in the 55¢/lb range. Demand isn't very bullish either. U.S. shipments could rise about 2% (to near 16.1 billion lb). But overall global supply-demand patterns suggest increasing inventories. Specifically, Free World consumption is estimated at only 12.45 million metric tons—somewhat under production which could rise to near 12.8 million metric tons.

Polystyrene

Rising benzene and styrene costs have helped push prices for the general purpose/crystal grade up into the 38-40¢/lb range—up 3¢/lb from late 1986. Strength could continue as demand advances 5-6% (about twice as fast as GNP) due to increases in the auto, appliance, and video/audio cassette markets.

Computers

Slippage is still the order of the day. The new, more powerful "386" PC is ready to hit the market at

Zinc

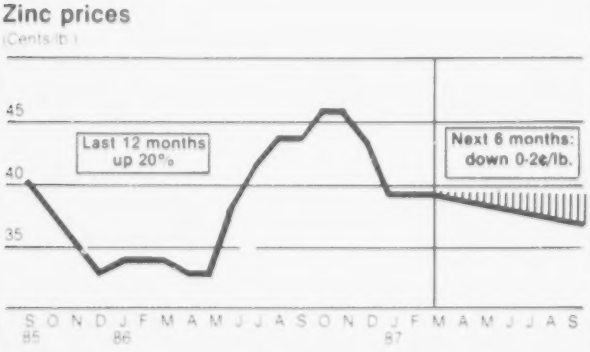
CURRENT SITUATION: Zinc is now fetching under 40¢/lb—vs. last fall's price of 46¢/lb. And European quotes have dropped $100/ton. Behind the decline: 1) the less ebullient outlook for some key markets, 2) increasing supplies following recent strike settlements, and 3) some LME and U.S. inventory buildup. **The fact that buyers continue to hold off on forward orders in expectation of even lower prices is not helping either.**

DEMAND: 1987 doesn't look that robust. Total U.S. slab zinc consumption will rise by only 1.5%—to 960,000 tons—vs. the 1.04 million tons clearing the market in 1979. **Best showing will be in the galvanizing area as auto firms intensify their rust-prevention drives.** Long-term overall growth will also be restrained—only 2% a year. Again galvanizing will be in the forefront—**as the market for galvanized sheet grows 20-25% over the next 8-10 years.**

SUPPLY: There's excess global capacity in mining and smelting. And U.S. production will rise 8% this year—to 325,000 tons—close to the 340,000 ton capacity level. Compare this to the 750,000 ton capacity per year of a decade ago. There's still ample supply outside the U.S.—70% of imports will come from Canada and Peru. **In the long term, there should be plenty of galvanized potential around**—just last year, capacity to turn out electrogalvanizing steel sheet jumped 2.5 million tons.

PRICE OUTLOOK: More volatility could be in store for 1987. Over the next few months, the going rate could come down another few cents, but quotes should remain well above the under-35¢/lb levels of last spring. Beyond that, much depends on labor. If new strikes break out (some contracts expire at the end of April), another runup is possible. **But even then gains should be limited—averages are unlikely to regain recent highs as demand remains subdued.**

Zinc prices



prices almost 40% lower than original models. Bigger computers are also dropping. In recent weeks 1) IBM announced extensive cuts in its Sierra mainframe line, 2) Hewlett Packard slashed 28% off its recently introduced HP 9000 Model 840 technical workstation, and 3) Digital Equipment Corp. has introduced new engineering systems that drop tags to around $10,000—half the price of the firm's current low-priced systems.

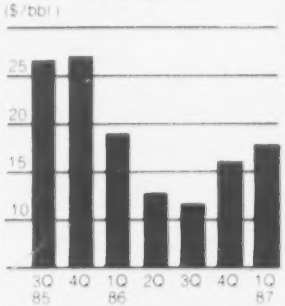
Copper

The red metal is still bumping along, as producer prices remain in the low 65¢/lb range. And that's likely to remain the case for most of 1987 because demand does not seem too robust. Indeed, a fractional decline in U.S. consumption from last year's 2.05 million ton level can't be ruled out as auto and construction demand top out. Global supplies look ample, too—as a small 50,000 ton first half production-consumption shortfall is offset by an estimated 100,000-ton second half surplus.

Paper

Prices continue to firm. A new $30/ton linerboard boost, for example, should take hold—pushing corrugated tags up as well. Newsprint has just moved up $35/ton—and there's talk of more hikes. Bleached board and uncoated white papers are higher, too. So is coated free sheet—though groundwood papers (hurt by new capacity) remain under pressure. Behind the upward movement: expectations of another good demand year (up 2.5%) and high (93.5-94%) operating rates.

Imported crude oil



Crude petroleum

Prices—aided by OPEC production curbs—seem to be settling in the $18/bbl range. But that should be it for a while, demand slips seasonally during the spring months. The next sustained increase (if the current one holds up) should come by fall when tags could move toward the $20/bbl range. On the other hand, any big new spurt seems remote, barring any Mideast blowup. Reason: Once oil reaches $25/bbl, it could spark new drilling both in the U.S. and in other non-OPEC areas.

Factory and office space

It's still a buyers' market. In fact, the vacancy rate for factories has surged to 5.8%—up nearly 1% from a year ago. Much higher figures are noted for Houston (14.9%), Miami

Industrial solvents

The $2.5 billion industrial solvents market may be in for some significant changes over the next few years, according to a new Frost and Sullivan report.

Key findings include a general drop-off in overall demand—primarily because of environmental restraints, and some unevenness in end uses and individual solvents.

On the latter score, glycols (used in antifreeze and the manufacture of polyesters) should fare well. So should fluorocarbon 113—used in dry cleaners and for cleaning sensitive equipment such as electronic components—where a 7% + annual growth rate is seen. By contrast, consumption of hydrocarbons, high in toxicity and volatility, will decline.

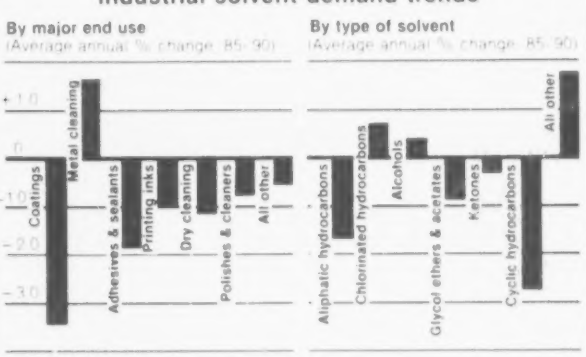
Meanwhile, on an end-use basis, paints and coatings will drop 3.4% annually between 1985 and 1990. The problem here is government regulation which has produced a "technical revolution" leading away from solvent-based formulations and toward high-solids liquid coatings, powder coatings, and water-based paints.

A somewhat less dismal, though also declining, demand curve is projected for the adhesives and sealants market. Blame the slippage here, too, on environmental restraints which are shifting the emphasis toward water-based formulations and hot melts.

The ink market for solvents will also shrink by about 1% a year as government curbs—mostly directed toward solvent recovery systems, prevent the growth of organic materials. Again, most of the decrease will take place in hydrocarbons. Also contributing to the decline: the dynamic growth in water-based flexographic inks.

There is, however, one big exception to market decline—namely the use of solvents in metal cleaning. The study foresees a 1.7% annual growth rate over the 1985 to 1990 period—with methyl chloroform and mineral spirits remaining the largest volume materials.

Industrial solvent demand trends



Source: Frost & Sullivan

(11%), and North and Central California (9.4%). There's also plenty of office space around—though both downtown and suburban area availability has flattened out. Highest downtown rates (20% or more) are centered in Dallas, Houston, Denver, Kansas City, Miami, New Orleans, Oklahoma City, St. Louis, Salt Lake City, and San Antonio.

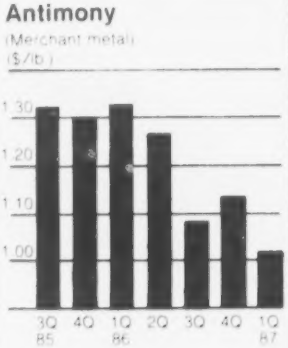
Data PBXs

Despite competitive threats from local area networks (LANs), the market for data PBX equipment will continue to grow this year—but with some possible flattening in 1988. So says International Resource Development, a Norwalk, CT-based market research firm. A principal attraction is the relatively low price compared with LAN or integrated voice/data PBX equipment. Low-end data PBXs can be acquired for as little as $100 per line vs. a typical LAN cost of more than $500 per connection. And large-scale integrated voice/data PBXs can cost $1,300 per line or more.

Lead

Tags are slipping into the mid-20s range—well under the 28-29¢/lb highs of just two months ago. Credit the drop to a relatively moderate winter which has put a damper on battery demand. Further price erosion seems likely during the next few months—though quotes should remain well above the 20¢/lb levels of last spring. As for overall 1987 demand, right now it looks as though total U.S. consumption won't top last year's 1.2 million ton level—as leaded gasoline adds to battery demand weakness.

Antimony



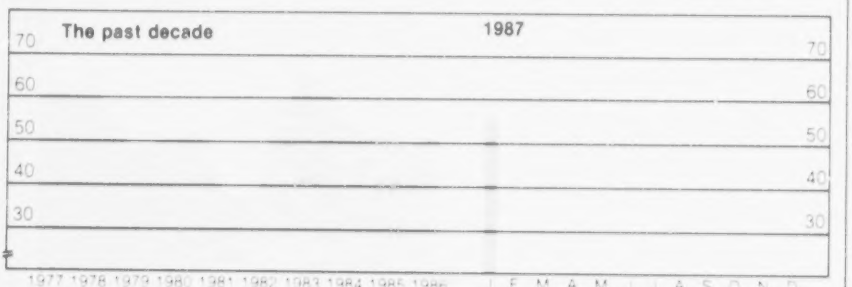
Antimony

Markets have turned easy—primarily because of an influx from China—with added downward pressure coming from cheap South African ore. Result: Merchant metal has dropped down into the $1.01-1.05/lb range—far below the $1.35/lb peak of a year ago. Oxide prices are also relatively low—averaging out at about $1.30/lb. One thing is certain—oxide imports continue to play an increasing role—with totals reaching 12 million lb over the past year. This is nearly quadruple the 3.5 million lb that entered the country in 1983.

BUSINESS DATATRAK

N.A.P.M. business barometer

Based on five indicators: employment, inventories, new orders, production, vendor performance



Source: Commerce Dept.

KEY ECONOMIC TRENDS

Good start will spill into 2Q

The year has gotten off to a reasonably good start, and there are increasing signs that the modest forward thrust will spill over into the second quarter. For example, the latest readings of the N.A.P.M. Business Barometer, a lead indicator of activity to come, are at their highest point in more than 2.5 years.

Equally significant, this index has been above the neutral 50 mark for six months. That's a sure sign that activity is on the rise.

But leading indicators aren't the only bullish factors around these days. Our huge trade deficit (with all its negative implications for GNP) finally seems ready to shrink—though it will take several more months to establish a definite trend in this critical area.

There is also some evidence that such a trend may be in the making—40% of buyers responding to a special question in the latest N.A.P.M. Business Survey noted a pickup in export orders. A few also see some indication of modest import pullback.

The consumer, too, may be a surprise—in part because of underwithholding of taxes pending clarification of the new W-4 withholding form. One analyst figures this could add as much as 1% onto GNP over the next two quarters.

Another positive sign is the Conference Board's measure of business confidence. While just a shade over the neutral 50 mark, the report notes that in every region except the Southwest, executives are anticipating increased economic stability or further gains during the first half of the year.

Even housing seems to be holding up. New permits, for instance, have moved higher over the past few months (see chart) indicating that lower (under 10%) mortgage rates will make up for a busy spring.

Further confirmation that construction is alive and well comes from the more inclusive F.W. Dodge building awards index which rose a respectable 2.5% over the latest reported month. True, non-residential building is weaker, but rising public works activity has more than offset this.

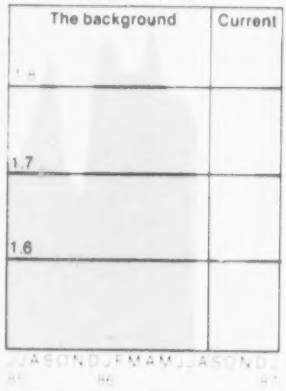
Near-term activity is also reassuring (see chart). Inventories, contrary to their historical behavior during the latter stages or a business pickup, are actually heading lower. This reflects a combination of factors: ready availability, better inventory controls, and a continuing move toward just-in-time manufacturing.

But whatever the reason, the impact of the current low inventories can't be underestimated. The current trend virtually rules out "living off inventory fat." As new or-

Leading indicators

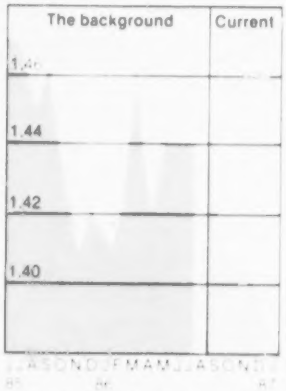
1. Housing permits

Mil. seas. adj. annual rate



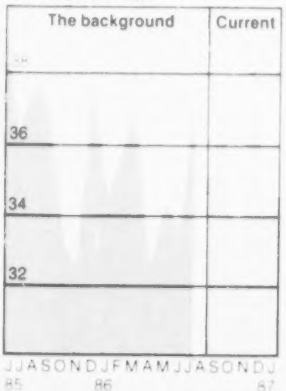
2. Factory stock/sales ratio

Percent



3. Capital equipment orders

Mil. of $ seas. adj.



ders come in, they will be quickly converted into new production.

The only problem is that new orders have been on the disappointing side in recent months. This is certainly true in the capital equipment sector (see chart) where incoming business continues to remain about the same without any discernable trend.

Point to keep in mind: These negative factors have to be weighed along with the positive ones outlined earlier. This is why *PurchasingWorld*'s economic staff foresees modest rather than brisk gains (2-3% annual rate) through spring, summer, and fall.

But that's not bad when you remember that the economy is now into its fifth straight year of uninterrupted growth.

Growth molded to high-tech

Look for engineering plastics to account for an increasing share of the average purchasing mix in the next few years.

A new study by Business Communications Co. (BCC) projects average annual tonnage increases of 4.8%. Although that's under the 15% gains of the past decade, it's still well above the general economic advance anticipated over the same period.

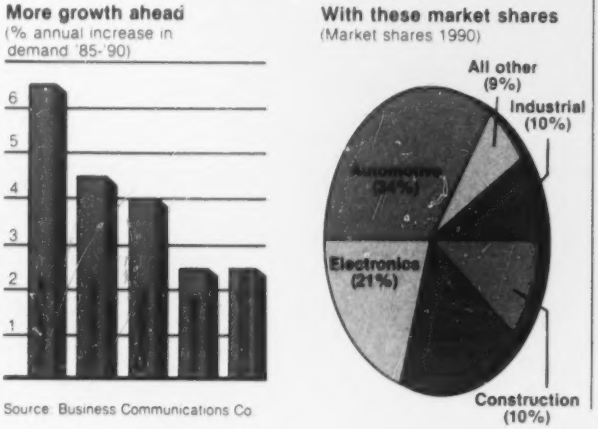
The Stamford, CT-based research firm bases its forecast on two basic trends: a shift to more complex metal replacement, and the development of specialty product systems.

The biggest emphasis will remain on alloying. Many producers are developing alloys to meet changing performance requirements. But fiber and filler compounding reinforcement is also being stressed—as is the use of liquid crystal and interpenetrating network technology.

Many suppliers of these versatile materials are also positioning themselves in the "swing" auto and electronic markets through special engineering programs (e.g. plastic bumpers) and the acquisition of high-tech firms that are well-placed in electronics.

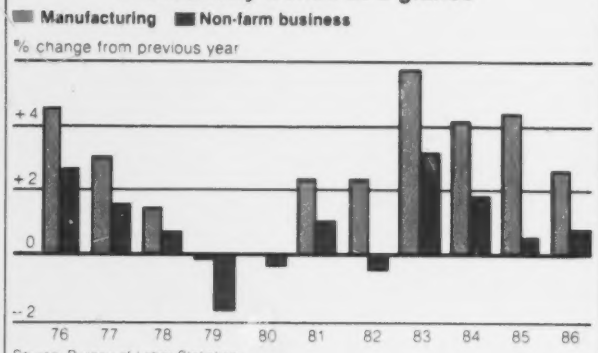
BCC also sees specialty markets on the rise. As a spokesman for the firm explains, "Producers are developing new products and product systems to fight downward pressures on the industry." As such, average annual advances of 15% are forecast for both the prototype and specialty segments of the market through 1990.

The outlook for engineering plastics



Source: Business Communications Co

Productivity trends at a glance



Source: Bureau of Labor Statistics

U.S. gets good marks for productivity

American productivity performance isn't nearly as bad as some of the purveyors of gloom and doom would have us believe. During the current business upturn (1983-86), for example, overall factory efficiency moved up at an impressive 4.2% annual rate.

So why all the talk about poor performance? Most of it stems from looking at a different set of numbers. Most analysts quote the more inclusive non-farm business productivity figures. And the numbers here are a lot lower—1.6% annually over the past four years.

This latter yardstick is lower because it is so heavily weighted with services—an area where efficiency gains are a lot harder to come by. But even here, there has been some improvement over the earlier 1976-81 period when the average non-farm business productivity advance was only 0.7% a year.

The manufacturing sector, too, has been improving its performance *vis a vis* these earlier years. So the 4.2% average gain over the past four years compares to the 1.9% average gain of the previous seven years.

The point to keep in mind is that U.S. industry has not been doing that bad a job in modernizing and cutting out waste and inefficiency. True, we haven't kept up with gains made by the Japanese and some other overseas competitors, but the numbers over the past few years are encouraging—particularly in such basic industries as

autos, steel, paper, chemicals, appliances, and textiles.

Even the somewhat lower 2.7% overall manufacturing efficiency advance recorded over the past 12 months has to be regarded as fairly good. Reason: Industrial production last year remained relatively flat—a pattern that traditionally has made productivity gains more difficult to achieve.

Where do we go from here? Assume a modest industrial production gain this year (the consensus forecast), and 1987 factory productivity could well achieve a respectable 3% + gain.

Conclusion: U.S. industry is far from moribund. In fact, it is making long strides in becoming competitive in world markets—a competitiveness that could be further enhanced by the continuing downdrift in the U.S. dollar.

This month's breakdown

	Latest level (Jan)	% change from: Month ago	Year ago
Bearings	355.9	0.1	0.7
Bolts, nuts, etc	277.9	0.0	0.8
Chemicals, inorganic	292.2	-0.4	-2.5
Chemicals, organic	335.7	3.4	-7.0
Concrete products	325.2	0.2	0.1
Corrugated cartons	283.5	2.3	7.4
Cutting tools, small	294.5	-0.1	2.1
Electric lamps (bulbs)	346.3	-0.2	-0.1
Electronic components	202.8	-0.1	1.6
Fans and blowers	358.5	0.5	1.8
Foundry and forge products	363.9	0.2	0.0
Fuel oil (residual)	528.7	10.2	-39.8
Furniture, commercial	322.6	0.5	2.5
Gasoline	347.4	9.9	-34.8
Glass, flat	234.2	0.5	1.9
Glass containers	401.1	-0.2	3.1
Gypsum products	344.4	-0.9	-4.4
Hand tools	387.9	-0.2	1.6
Hand tools, power driven	242.6	0.7	3.5
Industrial furnaces	400.0	0.9	1.4
Integrating and measuring instruments	238.4	0.1	2.2
Internal combustion engines	353.9	0.0	1.6
Lubricating oil	339.9	-1.8	-9.7
Lumber millwork	320.5	0.8	2.8
Material handling equipment	297.9	0.1	0.8
Metal containers	361.4	-0.3	-0.1
Metal mill shapes (nonferrous)	298.8	0.5	-3.1
Metal tanks	299.5	0.2	-2.0
Motors and generators	352.0	-0.2	0.6
Motor trucks	324.2	0.1	5.9
Office and store equipment	156.8	1.0	1.9
Paperboard	286.0	2.6	8.1
Paper boxes and shipping containers	279.2	1.6	4.8
Paper office supplies	242.9	0.7	2.7
Paint	281.3	-0.2	1.0
Plastic resins	291.8	1.1	-3.0
Precision measuring tools	269.8	0.0	1.2
Pumps and compressors	364.6	0.2	2.0
Refractories	371.2	0.2	-0.1
Rubber belts and belting	336.8	-0.1	-0.7
Scales and balances	233.1	0.1	1.2
Steel products	351.6	0.9	1.5
Switchgear	286.4	0.2	1.4
Textiles, synthetic fibers	148.8	0.3	-2.0
Textiles, gray fabrics	150.0	0.2	-0.9
Tires and tubes	232.7	0.8	-0.8
Transformers and power regulators	236.4	0.7	1.6
Welding equipment	302.7	0.2	1.3
Wire and cable	205.4	0.3	-0.6

CURRENT PRICES

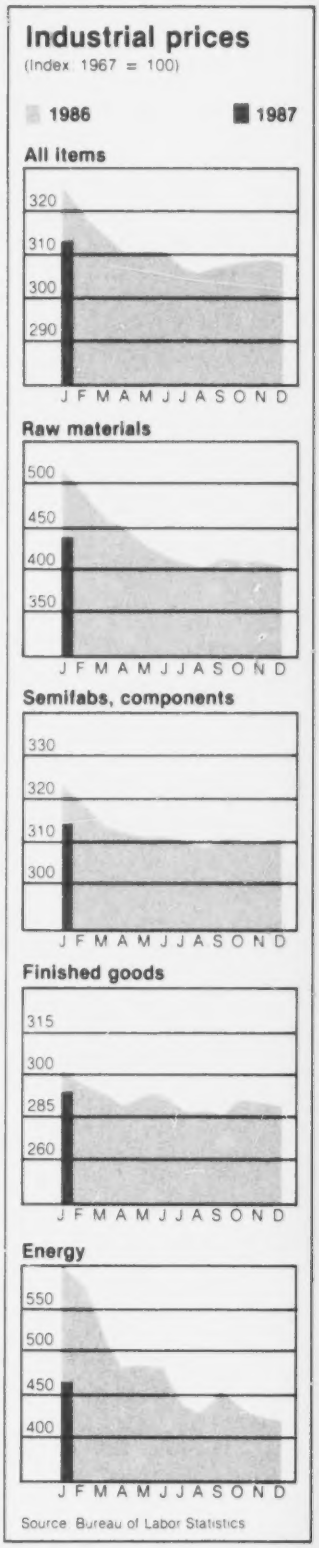
Sharp move up, but no panic

Industrial producer price averages moved up sharply (more than 1%) over the past month. But no one is pushing the panic button. Much of the jump reflects the late 1986 recovery in energy, a sector which has been recently showing signs of leveling off again.

Point to keep in mind: Take energy out of the price average, and the increase in overall tags is relatively modest. Equally significant, *PurchasingWorld*'s latest rundown (see table) also contains a number of declines. About 12 of the 50 product areas sport negative figures vs. month earlier levels.

A more detailed look at the changes over the latest 30-day period follows:

- **Energy:** The increases are biggest (10%) in fuel oil and gasoline. But considerable advances were also recorded in natural gas, diesel fuel, jet fuel, liquid petroleum gas, and even coal. Only electricity (off fractionally) managed to elude increases.
- **Chemicals:** Those products related to oil rose substantially—3.4% for organic chemicals, and 1.1% for plastic resins. But inorganic formulations remained soft, dropping 0.4% over the past month.
- **Metals:** It's a stand-off here. Steel lists rose, but the feeling is that this will be temporary—as USX gradually begins to hit the



market again. In nonferrous, some firming in aluminum is reported. But copper is holding steady, and lead and zinc have backed off from recent highs.

■ **Machinery:** A small 0.2% increase is noted. Heading higher were aircraft, communications equipment, office and store machines, printing trade machinery, metal-cutting machine tools, and transformers. This partially offsets declines noted in the auto and textile machinery spheres.

■ **Paper:** Markets remain strong, as linerboard and corrugated cartons move substantially higher. Also up over the month were wood pulp, waste paper, and some fine papers.

STEEL SCENE

No sure thing in steel today

The steel crystal ball remains a bit cloudy. While the latest buyer and distributor surveys point to some near-term demand improvement, it is not certain whether there will be any lasting gains that would push 1987 industry totals back into the plus column.

As Steel Service Center Institute (SSCI) president Andrew Sharkey explains, "It is still hard to identify a single major segment or customer group that will show significant gains in 1987." Of particular concern to Sharkey is the possibility of more auto production cutbacks in the months ahead.

The SSCI executive projects his group's shipment totals at only 21.2 million tons this year—off 2% from 1986 levels.

Mill executives are also far from optimistic about the year as a whole. Consensus forecasts, for example, put total domestic consumption at only 83 million tons this year (off 6%). Shipments are also sagging to the 65-66 million ton mark.

Nor are all the current questions limited to demand. More service centers see increases than decreases over the next six months—but it's not unanimous. A few are beginning to wonder about overall firmness and see possible declines of 5% or more.

Sharkey confirms this price uncertainty. At a recent talk before the Central States chapter of the SSCI, he noted the possibility of significant price swings and volatility in flat-rolled pricing in the first half of 1987—adding that there is a 50-50 chance that these products could collapse and head lower than 4Q 1985 levels.

Low foreign steel tags, especially in stainless, could also exert some downward pressure on prices. The latest SSCI survey shows that 71% report lower-than-domestic incoming stainless tags.

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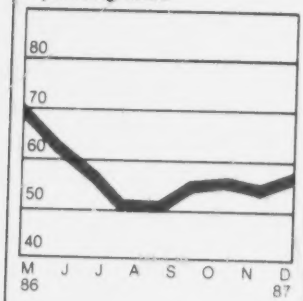
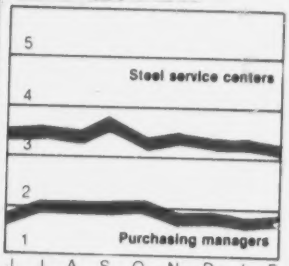
BUSINESS DATATRAK

Steel

Operating rates

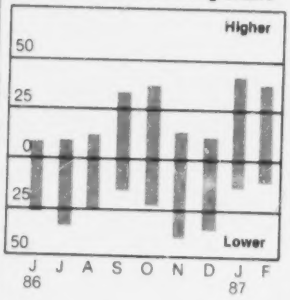


Inventories
(Months supply on hand)

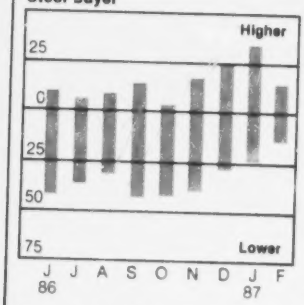


Demand
(Percent of respondents)

Service centers incoming orders



Steel buyer



Import prices
(Compared to domestic)

Steel buyers

ABOVE 14%
SAME 50%
SLIGHTLY BELOW 36%
SUBSTANTIALLY BELOW 0%

Service centers (carbon)

ABOVE 0%
SAME 83%
5-10% BELOW 14%
10-20% BELOW 3%
OVER 20% BELOW 0%

Source: Steel Service Center Institute, NAPM Steel Buyers Committee

And 18% say the price differential is in the 11-20% range.

These same distributors suggest that overseas carbon steel bargains are a bit harder to come by these days. Buyers would seem to agree on this latter point. While 36% say imports are cheaper, not a single respondent says import prices are "substantially" less than U.S. quotes.

But despite this, the typical steel buyer does not seem ready to cut back on imports. Approximately 32% say they expect to be even more dependent on imports over the next six months—compared to only 4% who anticipate less dependence.

More important, this 32% figure is the highest in some years. If what these PMs say is true, then current predictions of a fall-off in steel imports could be based on wishful thinking rather than on solid fact.

There is agreement, however, on inventory trends. Everyone seems to agree that holdings can be pared even more. Thus 41% of responding service centers say their steel stocks are too high vs. only 9% who believe they are too low.

A similar picture shapes up on the buyer front where the too high/too low ratio (29/7) is equally impressive. It's not surprising that nearly half of the PMs queried say they'll be aiming for lower steel inventories over the next six months.

The reasons for this are obvious. Aside from the need to cut costs, other key factors are: 1) today's better inventory controls, 2) the gradual shift to just-in-time manufacturing, and 3) ready availability (especially now that USX is back in the fray).

Only one product is mentioned by buyers as a possible problem area: coated sheet. And even here concerns have diminished a bit from late 1986.

PROCUREMENT STATUS

Relief for those tired of waiting

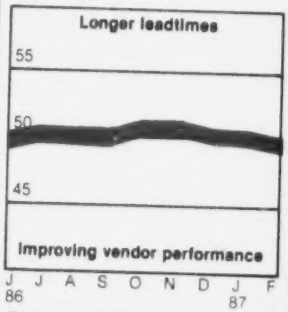
Demand may be up a bit, but you'd never know it from looking at the latest availability statistics.

PurchasingWorld's exclusive leadtime index, for example, has again dropped below the neutral 50 mark—suggesting a slight shrinkage in average waiting times over the past month or so. And only 8% of purchasing executives responding to the latest N.A.P.M. vendor delivery survey report slowdowns.

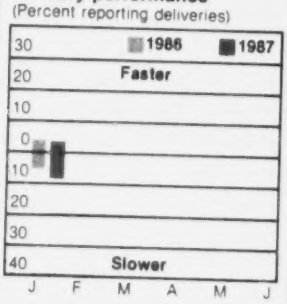
Moreover, this latter series may show some ad-

Monthly procurement status report

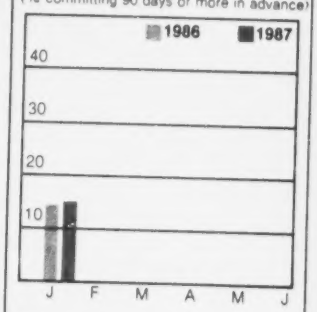
Leadtime index
A "diffusion" index based on 158 key commodities. Above "50" indicates a tendency for leadtimes to stretch out. Below "50" suggests improving vendor performance.



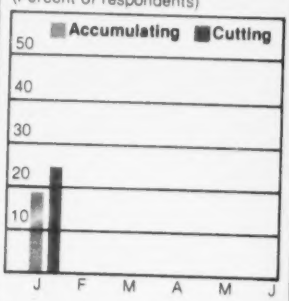
Delivery performance
(Percent reporting deliveries)



Forward commitments
(% committing 90 days or more in advance)



Inventory strategy
(Percent of respondents)



Source: NAPM

ditional improvement when the next report is out. Reason: Much of the current slowness is traceable to the lingering effects of the long USX steel strike.

Also indicative of easiness is the fact that only 16% of the respondents are now committing 90 days or more in advance for production materials. Conversely, the number buying on a 30-day or less cycle has jumped to 59%.

The same pattern is evident in the maintenance, repair, and operating (MRO) sector. Specifically, 88% now say they are committing 30 days or less in advance for MRO items—up from the 86% figure of just 30 days earlier.

Finally, there's the continued foot-dragging on inventories which would ordinarily not be taking place at a time of rising activity. The reason is increasing buyer confidence in the ability to get what is wanted or needed. In any event, the latest inventory figures show 25% still paring vs. only 19% who say they are accumulating.

No one seems worried about the future. Most PMs see the current easy situation continuing indefinitely. As one East Coast buyer puts it, "Three factors—the absence of major strikes, continuing strong imports, and operating rates below preferred—have to be regarded as major pluses."

Leadtimes and availability

Chicago: A few changes in steel—with higher leads (in weeks) noted for coated and galvanized sheet (12) and hot-rolled bars (6-7). But c-r and h-r sheets are in (to 8), as are aluminized sheet (to 9-10) and plates (to 4).

Cleveland: Small changes include a stretchout in hardwood lumber (from 1-2 to 2-3 weeks) and natural kraft paper (from on-demand to 1). But steel canisters are in a week (to 1).

Los Angeles: A modest trend toward shrinkage is noted, with these weekly leads: Aluminum tubes (4-6), grey iron castings (4-5), brass castings (6-8), domestic fasteners (6-8), and custom seals (12-14).

Houston: Galvanized steel coil from domestic mills has moved out 5 more weeks (to near 19). Metals are holding steady at 0-4. Ditto, plastic resins (4.5), corrugated boxes (3.5), steel fasteners (2), plastic bottles (6), structural steel (12-21), and imported heat exchangers (30-39).

Philadelphia: MRO items remain relatively easy with these weekly leads: cutting oils and lubes (4-6), paper towels and tissues (1), standard drills, taps, and polishing wheels (2-4), standard grinding wheels (4-6), and special grinding and polishing wheels (12). No change in steel coil (8-10).

Pittsburgh: Zinc has come in a week (to 2). But most other products are marking time as follows: corrugated (3-4), wirebound boxes (4-5), drums (1), fiberboard and chipboard (3-4), waterproof papers (8), plastic packaging materials (2-3), lumber (3-4), plastic resins (5-6), and fabricated copper from mills (6).

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BUSINESS DATATRAK

Leadtimes (in weeks)

	Now	Month ago	Six months ago
STEEL			
Sheet (Phil)	4	4	4
C-R Sheet (Chgo)	8	10	7½
Plate (Phil)	3½	3½	3½
Plate (Chgo)	4	4½	2½
Reinforced (Hous)	6	6	6
H-R Bars (Phil)	5½	5½	5½
H-R Bars (Chgo)	6½	4½	4
Cold-Drawn Bars (Phil)	5½	5½	5½
Galvanized (LA)	13	13	13
Galvanized (Chgo)	12	10	6½
Structurals (Chgo)	4½	4½	4½
Structurals (Hous)	17	17	17
Tubing (Phil)	3½	3½	3½
Grey Iron Castings (LA)	4½	9	7
Steel Castings (Hous)	11½	11½	11½
Forgings (Hous)	6	6	6
Pipe, Carbon (Hous)	17	17	17
ELECTRIC & ELECTRONIC			
Cables (Chgo)	8½	8½	8½
Capacitors (Chgo)	16	16	14½
Circuit Breakers (Chgo)	6	6	6
Electromech. Devices (LA)	7	7	7
ICs (Linear) (Phil)	9	9	9
Motors (Phil)	9	9	9
Motors, 1000 hp & Up (Hous)	39	39	39
Printed Circuit Boards (Chgo)	9	9	9
Relays (Chgo)	15	15	15
Resistors (Chgo)	9	9	9
Resistors, Wirebound (Phil)	5	5	5
Transformers (Chgo)	10	10	10

	Now	Month ago	Six months ago
LUMBER			
Hardwood (Pgh)	3	3	3
Hardwood (Clev)	2½	1½	1½
Plywood (Chgo)	3	3	3
Plywood (Phil)	1½	1½	1½
Softwood (Clev)	2	2	2
Softwood (Phil)	¼	¼	¼
Softwood (Pgh)	3	3	3
Particleboard (Phil)	2½	2½	2½
CHEMICALS-PLASTICS			
Adhesives (LA)	½	½	½
Naphthalene (Chgo)	2	2	2
Paint (LA)	4	4	4
Paint, Coil Coating (Pgh)	4	4	4
Paint, Maint. (Cleve)	2	2	2
Polyester Resin (LA)	2	2	2
Polyethylene Resin (Cleve)	2½	2½	2
Polyethylene Resin (Pgh)	4	4	4
PVC Resin (Chgo)	2	2	2
PVC Resin (Pgh)	6	6	6
Titanium Dioxide (LA)	1	1	1
PACKAGING			
Bags, Kraft (Pgh)	5	5	5
Bags, Multiwall (Clev)	9	9	9
Bags, Multiwall (Pgh)	6	6	6
Cartons, Corrugated (Cleve)	2½	2½	2½
Cartons, Corrugated (Hous)	2	2	2
Cartons, Folding (Phil)	6½	6½	6½
Cartons, Folding (Pgh)	3½	3½	3½
Cellophane Wrap (Phil)	5	5	5
Plastic Bags (Pgh)	3½	3½	3½
Plastic Pkg. (Pgh)	3	3	3

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	Now	Month ago	Six months ago
Shrink Film (Chgo)	6	6	6
Shrink Film (Clev)	1	1	1
Drums, Fiber (Pgh)	1	1	1
Drums, Steel, Std. (Pgh)	1	1	1
Wood Pallets (Chgo)	2½	2½	2½
Wirebound Boxes (Pgh)	4½	4½	4½
Strapping (Clev)	1	1	1
Strapping (Pgh)	3	3	3
PAPER			
Fiberboard (Clev)	3½	3½	3½
Glassine (Clev)	4½	4½	4½
Glassine (Pgh)	5½	5½	5½
Groundwood (Clev)	4½	4½	4½
Groundwood (Pgh)	7	7	7
Kraft (Clev)	1	1	1
Kraft, Bleached (Clev)	1	1	1
Kraft, Bleached (Pgh)	5	5	5
Kraft, Natural MFNS (Clev)	½	½	1
Laminated (Clev)	8	8	8
Tissue (Pgh)	5½	5½	5½
NONFERROUS			
Aluminum Coil (Chgo)	13	13	11
Aluminum Plate (Chgo)	12	12	12
Aluminum Sheet (LA)	4½	4½	4½
Aluminum Sheet (Chgo)	13	13	11
Brass Castings (LA)	7	9	7
Brass Rods (Chgo)	9	9	9
Brass Sheet (Chgo)	5	5	5
Brass Tube (Chgo)	7	7	4
Copper Fittings (LA)	3½	3½	3½
Copper Mill Prod. (Pgh)	6	6	6

	Now	Month ago	Six months ago
Copper Tube (LA)	7	7	7
Copper Tube (Phil)	5½	5½	5½
Lead (Pgh)	2	2	2
Magnesium (Pgh)	2	2	2
Manganese (Clev)	1	1	1
Nickel (Clev)	1	1	1
Nickel (Pgh)	2	2	2
Silicon (Clev)	1	1	1
Tin (Pgh)	2	2	2
Wire, Specialty (LA)	5	5	5
Zinc (Pgh)	2	3	3
MISCELLANEOUS			
Bearings, Domestic (Phil)	2	2	2
Bearings, Foreign (Phil)	26	26	26
Boilers & Furnaces (Hous)	35	35	35
Compressors, Centrifugal (Hous)	48	48	48
Compressors, Reciproc. (Hous)	39	39	39
Fasteners (Chgo)	1½	1½	1½
Fasteners (LA)	7	9	7
Fasteners, Std. (Phil)	3	3	2½
Heat Exchangers, Carbon-alloy Steel (Hous)	21	21	21
Heat Exchangers, Hi-pressure (Hous)	26	26	26
Insulation Mat'l. (LA)	7	7	7
Machined Parts (Hous)	9	9	9
Pipes & Valves (Chgo)	1½	1½	1½
Pumps (Hous)	24	24	24
Pumps (LA)	11	11	11
Rubber, Synthetic (LA)	2	2	2
Rubber Hose (LA)	4	4	4
Tungsten Carbide Parts (Hous)	15	15	15
Valves, Cast Steel (Hous)	17	17	17
Welding Supplies (Hous)	5	5	5

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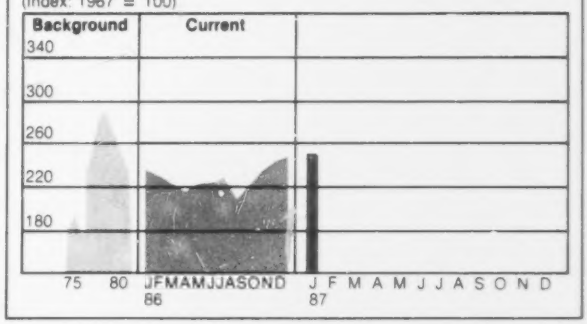
BUSINESS DATATRAK

Raw material price barometer

Latest month 253.0
Month before 247.5
Year ago 236.9

(Index: 1967 = 100)



Latest spot market prices

	Latest price	Previous month	Year ago
FERROUS METALS			
Pig iron, basic, valley, gross ton	213.00	213.00	213.00
Pig iron, Bessemer, Pitts., gross ton	213.00	213.00	213.00
Steel, billets, Pitts., net ton	367.00	367.00	367.00
Steel, structural shapes, Pitts., cwt.	23.90	23.90	23.90
Steel, structural shapes, Chi., cwt.	23.90	23.90	23.90
Steel, structural shapes, Los Angeles, cwt.	23.90	23.90	23.90
Steel, bars, dlvd. Phila., cwt., merchant quality	23.95	23.95	23.95
Steel, bars, Pitts., cwt.	23.95	23.95	23.95
Steel, bars, C.R., Pitts., cwt.	31.00	31.00	31.00
Steel, plates, Pitts., cwt.	18.25	18.25	18.25
Steel, plates, H.R., Pitts., cwt.	18.25	18.25	18.25
Steel, sheets, C.R., Detroit, cwt.	26.90	25.90	25.15
Steel, strip, C.R., Chi., cwt.	36.18	36.18	36.18
Steel, basic wire, Pitts., cwt.	23.65	23.65	23.65
NONFERROUS METALS			
Aluminum, ingot, lb. (market place)	.570	.535	.563
Antimony, N.Y., dealer, lb.	1.03	1.05	1.32
Beryllium-copper, cost ingot, lb.	5.65	5.65	5.35
Brass, red, 85%, [sheet], lb.	1.29	1.29	1.30
Brass, yellow, [sheet], lb.	1.24	1.24	1.25
Cadmium, N.Y., dealer, lb.	0.95	0.97	0.90
Copper, electrolytic, wire bars, refd., lb.	.65	.65	.67
Copper sheet, over 24 in., lb.	1.38	1.38	1.39
Lead, common, N.Y., lb.	.26	.28	.18
Magnesium, pig ingot, [99.8%], lb.	1.53	1.53	1.53
Mercury, 20 fl. lots, N.Y., fl.	210.00	220.00	250.00
Molybdenum, oxide, dealer, lb.	3.07	3.10	2.70
Nickel, cathode, dealer, lb.	1.70	1.70	1.88
Platinum, dealer, oz.	524.00	534.00	353.00
Silver, N.Y., oz.	5.54	5.57	5.91
Tin, N.Y., dealer, lb.	3.17	3.13	3.40
Zinc, Prime West, East St. Louis, lb.	.38	.41	.34
Zinc, die casting alloy, No. 3, lb.	.465	.525	.415
PAPER			
Uncoated book #3 offset, ton	860.00	860.00	850.00
Watermarked bond, ton	985.00	985.00	985.00
Gummed sealing tape, carton	16.29	16.38	16.15
Shipping sacks, ton	390.00	390.00	390.00
Solid bleached paperboard, ton	550.00	550.00	550.00
Kraft linerboard, 42 lb., unbleached, ton	330.00	320.00	290.00
TEXTILES			
Burlap, 10 oz., 40", N.Y., yd.	.238	.243	.236
Cotton drill, 1.85, 59", 68x49, N.Y., yd.	1.085	1.060	1.045
Cotton middling, 1", N.Y., lb.	.530	.545	.600
Printcloth, 48", 80x80, N.Y., spot, yd.	.95	.90	.66
Army duck, 37", 13 oz., yd.	1.405	1.400	1.500
Blended printcloth, 64", 78x54, yd.	.82	.80	.75
20s combed yarns	1.77	1.74	1.95
Wool 64s, Staple, lb.	2.00	1.90	1.80
CHEMICALS			
Acrylonitrile, tanks, lb.	.395	.395	.395
Ammonia, anhydrous, tankcars, Gulf Coast, ton	80.00	80.00	N.A.
Benzene, petroleum, tanks, Houston, gal.	1.20	1.15	1.05
Caustic soda, 76% solid, drums, carlots, cwt.	26.00	26.00	26.00
Cresylic acid [over 25%], tanks, lb.	.58	.58	.58
Formaldehyde, USP, 37%, [12% to 15% meth.], tanks, lb.	.106	.106	.106
Glycerine, synthetic, tanks, lb.	.91	.91	.91
Methanol, snty., tanks, 4,000 gals., f.o.b. Gulf Coast plants	.28	.28	N.A.
Naphthalene, crude, tanks, lb.	.22	.22	.22
Phthalic anhydride, tanks, lb.	.27	.27	.27
Polyethylene resin, low density liner film grade (market place), lb.	.29	.29	.31
Polypropylene, homopolymer grade (market price), lb.	.345	.325	.350
Polystyrene, general purpose grade (market price), lb.	.39	.36	.35
Polyvinyl chloride, pipe grade (market price), lb.	.305	.295	.260
Soda ash, 58%, light carlots, cwt.	6.15	6.15	6.15
Styrene monomer, 99.6%, tanks, lb.	.26	.25	.26
Sulphur, crude, ex-terminal, Tampa, Fla., lt.	152.50	152.50	157.50
Sulphuric acid, 66%, commercial, tanks, ton	66.86	66.86	66.86
Titanium dioxide, anatase, reg., carlots lb.	.77	.77	.73
Xylene tanks, gal.	.765	.765	1.36
BUILDING MATERIALS			
Lumber, 2x4 fir, mbf, cl	322.90	325.75	303.90
Lumber 2x2 pine, mbf, cl	314.40	318.65	294.95
Plywood, plyform, ⅜", msf, cl	585.05	584.10	567.95
Plywood, ⅝", msf, cl	384.95	382.60	377.00
Cement, bulk, ton, tl	63.28	63.63	65.92
Sand, ton, cl	6.70	6.62	6.41
Ready-mix concrete, 3,000 psi/cu. yd., 15 cu. yd.	48.07	48.27	47.94
Crushed stone, 1½", ton, cl	8.08	7.83	7.82
Concrete blocks, sand/gravel, 8"x8"x16", ea., tl	0.84	0.84	0.82
Gypsum sheathing, ½"x1"x8", msf, tl	213.52	213.87	207.69
Brick, common, per thousand, tl	186.96	186.42	184.06
Asphalt paving, AC-20	124.05	124.19	174.14
Concrete sewer pipe, 12", prem. joint, per foot, cl	7.36	7.36	7.14
FUELS			
Fuel oil, No. 6 or Bunker C, Gulf., bbl.	14.75	15.00	14.00
Fuel oil, No. 6 or Bunker C, N.Y., barge, bbl., reseller	20.75	19.25	22.50
Gasoline, 91 oct., reg., Los Angeles, rack, gal.	.585	.485	.625
Gasoline, 94 oct., reg., Chi., tank car, gal.	.510	.500	.578
Heating oil, No. 2, Chi., bulk, gal.	.488	.500	.630
Heating oil, No. 2, N.Y., bulk, gal.	.498	.483	.545
Heavy fuel, PS 400, Los Angeles, rack, bbl.	26.50	26.50	26.50
Jet kerosene, gal.	.478	.530	.520
LP-Gas, propane, Okla., tank cars, gal. [incl. discount]	.245	.245	.430
SCRAP MATERIALS			
Steel, No. 1, hvy., dlvd., Pitts., ton	83.00	80.00	77.00
Steel, No. 1 hvy., dlvd., Chi., ton	77.00	77.00	76.00
Copper, No. 1, East, wholesale buy, dlvd., lb.	.555	.560	.575
Copper, No. 2, East, wholesale buy, dlvd., lb.	.480	.480	.505
Brass, red, East, wholesale buy, dlvd., lb.	.515	.520	.535
Brass, yellow, East, wholesale buy, dlvd., lb.	.330	.330	.290
Alum., old sheet/cast, E., wholesale buy, dlvd., lb.	.355	.340	.350
Alum., mixed clip, E., wholesale buy, dlvd., lb.	.380	.365	.370
Zinc, old, East, wholesale buy, dlvd., lb.	.200	.200	.150
Lead, clean solids, East, wholesale buy, dlvd., lb.	.155	.155	.100
Paper, No. 1 mixed, dlr., N.Y., ton	Nom.	Nom.	Nom.
Paper, old corrug. box, dlr., Chi., ton	28.00	25.00	10.00
Paper, old corrug. box, dlr., N.Y., ton	22.00	20.00	10.00
Osnaburg cuttings, dlr., f.o.b. N.Y., lb.	.090	.095	.120
White wipers, No. 1, dlr. buy, f.o.b. N.Y., lb.	.110	.110	.140

[Sources: Metals Week, Engineering News-Record (20-city averages), Platt's Oilgram Price Service.]

Great freight rates in store

There's good news from Wharton Econometric's transportation analysts. They say to figure on another year of relatively small freight rate increases. In a new report prepared especially for *PurchasingWorld*, these analysts peg the overall 1987 advance at just 2.5%—not much above last year's 1.2% boost.

The new estimate is also slightly lower than the figures suggested six and three months ago when the Wharton model called for advances of 3.3% and 2.7%, respectively.

But 1988 could present some problems. Wharton sees the increase that year accelerating to 4.2% because of stronger demand for freight and additional cost pressure stemming from higher energy prices.

In their first estimates for 1989, Wharton analysts see even further acceleration. Specifically, the overall increase that year is put at 4.9% as demand and energy factors continue to put upward pressure on rates.

But these overall rate forecasts tell only part of the story. As in the past, there should be significant mode-by-mode differences. Key areas shape up along these lines:

■ **Rail:** Only a 2% rate increase was posted in 1986 because of relatively flat ton-miles (0.3% rise to 880 billion) and a 0.5% decline in car loadings. There probably won't be any big changes in 1987 either.

While intermodal is expected to continue to be the strong traffic sector, this too, points to continued price moderation due to competition from low-cost, non-union trucking.

Price hikes for 1987 are expected to average 2.8%. In 1988, however, rising input costs and increasing demand will feed through the system and push prices up 4.3%.

■ **Trucking:** Carriers are optimistic that there will be some gains in freight volume this year. But these demand increases are not likely to translate into very sizable price increases. Reason: The industry is looking into improved efficiency, low fuel costs, and continued productivity gains—all of which should help offset the effects of intense competition, higher union wage costs, and heftier insurance premiums.

As a result, truck rate hikes should be held to 2.4% this year after the miniscule 0.9% rise of 1986. But next year and in 1989, as both fuel prices and activity heat up, price hikes should accelerate to 4.2% and 5.0%.

■ **Barge:** This sector continues to suffer from overcapacity—a situation which has led to discounting and a net decline in prices since 1982. However, there is optimism in the industry that the problem is slowly being corrected as operators continue to scrap units and reduce the barge surplus. The nation's international trade imbalance is also holding prices down because it is difficult for ocean ships to find loads for their return trips.

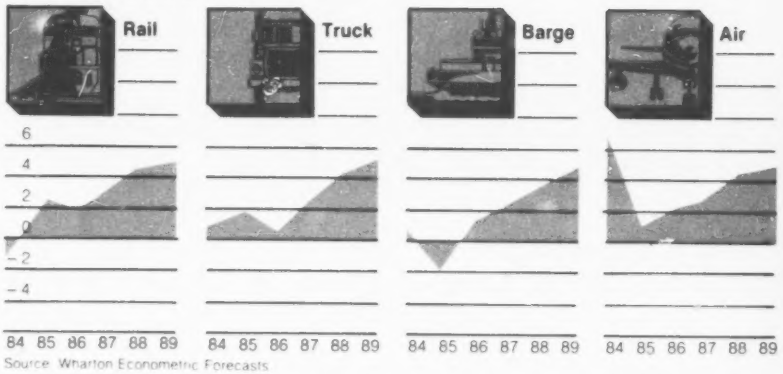
But this problem should also slowly abate. The decline in the dollar has already helped exports of certain commodities. Watch for water rates to edge up 2.3% this year, and for the acceleration to continue over the longer pull. Even so, rate increases here will continue to be the lowest of all modes, averaging 4% over the 1988-1989 period.

■ **Air:** Passenger service was very strong in 1986 and freight was up 10.6% in the first 11 months. Price increases averaged only 2.1% as lower oil prices reduced cost pressures and active competition. Mergers and acquisitions also continued to provide a fertile environment for price wars.

This year, air freight should remain healthy although passenger traffic growth may ease up a little. As for prices, only a slight acceleration to 2.8% is forecast for this year. But in 1988, as fuel and other costs climb, rates are targeted to jump 4.4%. ***PW***

Freight cost outlook by mode

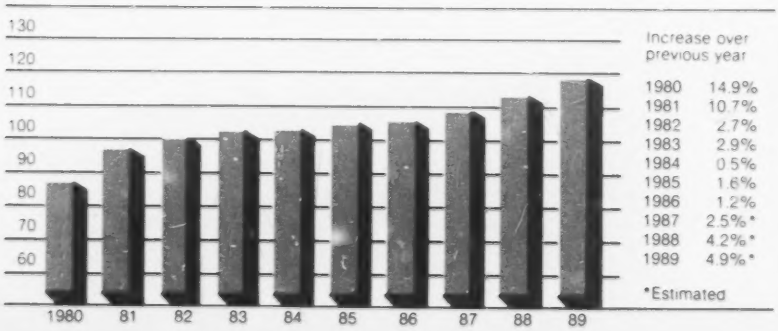
(Percent increase over previous year)



Source: Wharton Econometric Forecasts

PurchasingWorld freight rate index

(1982 = 100)



	Increase over previous year
1980	14.9%
1981	10.7%
1982	2.7%
1983	2.9%
1984	0.5%
1985	1.6%
1986	1.2%
1987	2.5%*
1988	4.2%*
1989	4.9%*

*Estimated

Buyers find little to worry about

Robert S. Reichard, executive editor

Buyers of transportation services say they may have to pay a bit more in 1987 for rail, truck, water, and air transportation services, but they're confident that increases will stay in the relatively low 2-3% range. And there will be plenty of opportunities for discounting and other forms of price shading.

That's the opinion of most purchasing executives in the recent *PurchasingWorld* transportation survey. Purchasing managers say that their projections are based on more than wishful thinking. In fact, their projections are in line with those of Wharton Econometrics in its exclusive quarterly transportation report for *PurchasingWorld* found in this issue.

PMs base their forecasts on these factors: 1) excess carrier capacity in all key modes, 2) relatively modest upward labor and energy cost pressures, 3) the continuing competitive climate fostered by recent deregulation, and 4) another year of moderate demand gains.

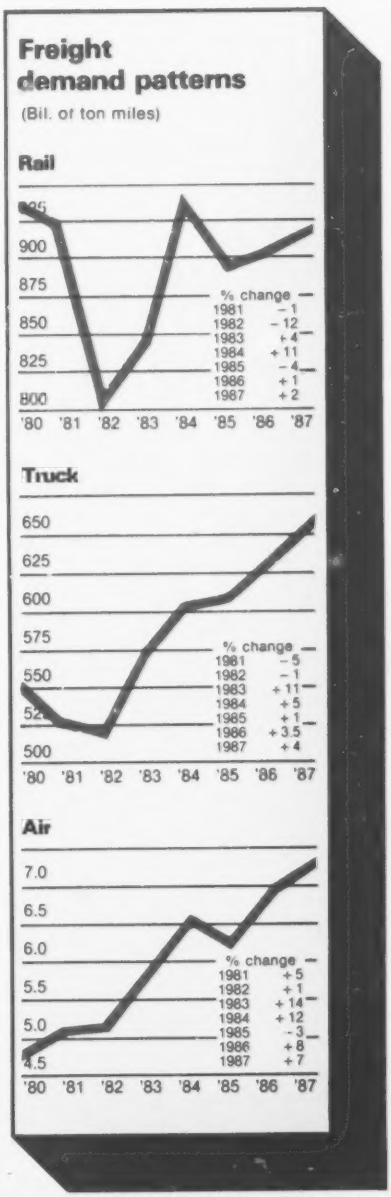
On the latter score, rail ton-miles this year aren't likely to rise by more than 2%. While above last year's advance of less than 1%, that would still leave totals under the 932 billion ton-miles shipped in 1980 (see "demand" chart).

The demand picture is more positive for trucking. Last year, for example, total tonnage rose about 3-4%, with a similar advance seen for 1987—but that's hardly enough to fill up all of today's empty trucks.

Even truckers admit that competitive pressures are fairly strong these days. Preston Trucking, a large Mid-Atlantic LTL carrier, recently said it expects a 4% April rate increase to gradually erode 0.5% per month over the rest of the year.

This fluctuating rate picture is further reinforced by our survey which suggests the following overall patterns:

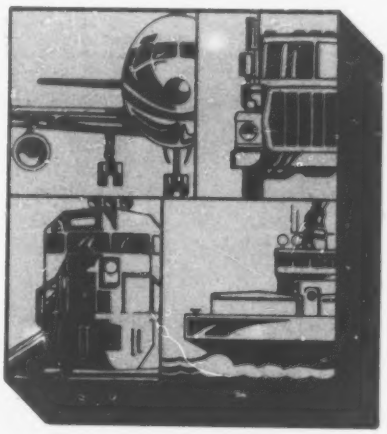
- **1987 rate trends:** Four out of five respondents hope to hold this year's advance to 3% or less, and only 3% put gains in the 7%+ range (see "survey" chart). And, at the other end of the spectrum, it's hard to ignore the fact that 14% of those queried actually expect to do better ratewise in 1987 than they did last year.
- **Modal shifts:** About 20% say they have been making changes to effect costs savings. Some, for example, have moved from rail to truck or from truck to air—in many cases to meet the speedier delivery needs of just-in-time inventorying. And others say they have done one or more of the following: 1) shifted from multiple to single carrier sources, 2) put more emphasis on discount LTL carriers, or 3) are in the process of liquidating in-house trucking operations because of high insurance costs.
- **Contractual agreements:** An impressive 36% say they are continuing to move in this direction—with as much as 50% of their freight moving under contract. Savings vary depending on bargaining clout and competitive conditions in individual areas. One firm tells of saving as much as 30% by using contract carriers looking for "backhaul" business.
- **Transportation specialists:** This approach has become increasingly popular—especially for international shipments. Some 32% of survey respondents admit to some involvement with brokers, agents, shipping



Source: Transportation Policy Assoc., PW estimates

associations, and the like. While cost is certainly a factor here, other considerations include convenience, time savings, and reliability.

■ **PM involvement:** PMs say they are involved in virtually all aspects of the transportation buying decision. More to the point: 93% of the respondents indicate that they are currently responsible for designating inbound freight; 57% say they play a major role in negotiating contracts; 61% designate outbound freight; and another 29% help determine the actual routing.



A hotly contested year

PMs agree that it is going to be another hotly competitive year with discounts readily available for those willing to take the time to press hard enough for them. One LTL carrier spokesman observes that "most shippers of unitized or palletized freight can get at least a 45% discount from any carrier today—providing that there is significant volume."

Buyers also note that the fiercest competition will be among the big trucking companies that dominate the LTL market—carriers that ship loads averaging 700-800 lb across the country, sort them at intermediate warehouses, and then put them on smaller trucks for local deliveries.

But not everything is coming up roses. Several PMs feel that more mid-sized carriers could bite the dust if they get caught in a squeeze between the low operating costs of start-up companies and the pricing, service, and size advantages of the big national carriers.

On-time deliveries are another common concern, although this doesn't seem to be an across-the-board problem at this time. Other complaints mentioned by PMs include wet shipments, damaged goods, and price increases from the time of original quote to the time of delivery.

At least one shipper would also like to see less state interference in today's basically free market. He cites new re-regulating moves on the part of at least one state—California.

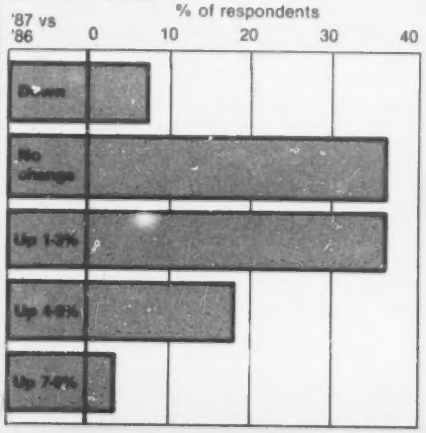
Despite this less-than-perfect freight environment, shippers remain quite happy about overall carrier performance. In response to a question on carrier service, 21% evaluated it as being "excellent" and another 68% dubbed it as "good." More significant, only 11% rated carrier performance as just "so-so"—and not one single respondent felt it was "poor."

Agreement is widespread that, from the transportation buyer's point of view, this will be another good year for both carrier performance and rates. As one Midwestern buyer puts it, "There's little to complain about service. While we may have to pay a bit more, it won't be all that much more. With a little arm-twisting, I think that in some areas we may still be able to hold the price line at last year's levels."

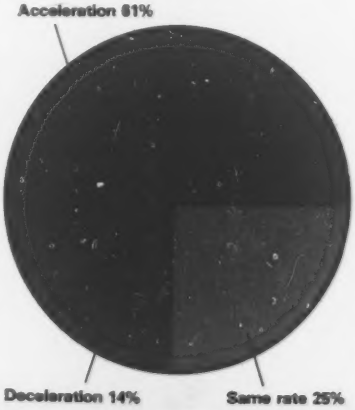
PW

The '87 freight picture: a purchasing view

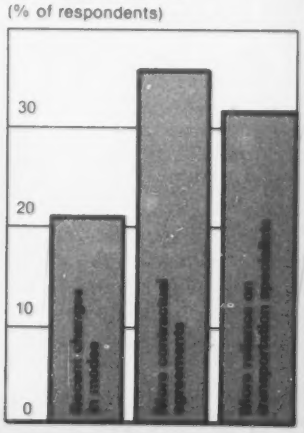
Pay boosts will be modest



Though somewhat above the '86 pace



With plenty of innovative moves



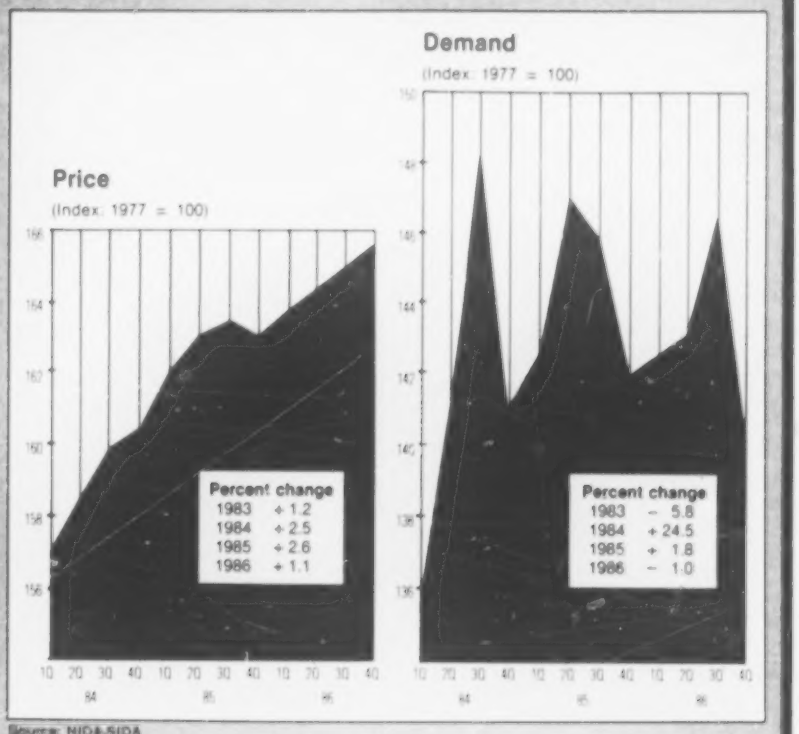
MRO market at a glance

MRO markets remain very competitive as relatively flat demand and ample or even excess supplies keep a tight lid on tags.

Over the past year, for example, average quotes moved up by just 1% (see accompanying chart). That's actually under the 2.5% advances noted over the previous two years.

And dollar sales—hurt by flat industrial production (and real declines in such old-line industries as oil, metal, and machinery)—edged down by about 1%. The drop in physical or volume terms, after factoring in the 1% price advance noted above, was probably more on the order of 2%.

Distributors are expecting some demand improvement this year. But the accent should be on the word "expect"—because little change over 1986 patterns has been noted over the past month or two.



Source: NIDA-SIDA

uct of the automatic replenishment process. For example, the mainframe computer can be programmed to produce a printed daily transaction report—a listing of all the replenishment request information transmitted the previous day to the mainframe computer. This report can include information on items ordered, closing balance figures, indications that minimums for certain items are approaching, and shipped-on-invoice messages that allow for easy location of shipments.

The computer can also be programmed to use packing ticket/receiving ticket/invoice data to summarize and tally prices of issued materials during the month. This account distribution report can identify individual users, date of issue, quantity, and the associated materials costs. It thus provides an exact record of where MRO dollars are being spent.

Using data generated as a by-product of the automatic replenishment process, the computer can produce monthly and quarterly journals for all items purchased for the current period and the year-to-date. This single report allows management to review the activity or inactivity of all items and, if necessary, to reduce inventory by adjusting minimums and eliminating obsolescent stock.

Converting to an automated system

The transition from conventional inventory management programs to total automated procurement is relatively simple. In conventional systems, replenishment is triggered when the balance-on-hand reaches that predetermined level known as "bin reserve." At that point, the clerical cycle of requisitioning, ordering, receiving, and storing begins. The quantity on hand has reached the "bin level" by attrition, and the uncounted "active" supply of the item is issued at will.

Converting to an automated system doesn't change the method of doling from uncounted stock. Instead, the quantity of "active" supply is reduced as before, but a "surplus" quantity of the item remains packaged and is kept in the same bin or other reserve location until it is needed.

Under this method, when the "active" quantity requires replenishment, a box of the "surplus" is brought out, and a usage card with the opened box quantity is transmitted to the computer. The computer reduces the surplus quantity on hand and compares that figure with the minimum quantity allowed. If the balance on hand is equal to or less than the minimum, it will automatically trigger a replenishment to bring the surplus quantity on hand back to maximum.

This method does not add any additional material to inventory. It simply divides the quantity on hand into an active supply and a bin reserve.

In time, monthly and quarterly journals will reveal the quantity used and the number of occasions when the active supply is replenished from surplus. Companies using this method have found that it reduces their floor stock and surplus inventories by at least 25%.

Moreover, the new method eliminates requisitions, purchase orders, receiving reports, bin locator cards, and the posting of received quantities. ***PW***